

**METHOD OF EMULATING MACHINE TOOL BEHAVIOR FOR PROGRAMMABLE  
LOGIC CONTROLLER LOGICAL VERIFICATION SYSTEM**

**ABSTRACT OF THE DISCLOSURE**

5           A method is provided of emulating and visualizing  
machine tool behavior for a programmable logic controller  
logical verification system for manufacturing a motor vehicle.  
The method includes the steps of constructing a mechanical  
model. The method also includes the steps of viewing motion  
10 of the mechanical model in a motion viewer and determining  
whether the motion of the mechanical model is acceptable. The  
method further includes the steps of replicating the motion  
previously defined with PLC code if the motion of the  
mechanical model was acceptable and using the accepted motion  
15 of the mechanical model to compare the behavior of the PLC  
code relative to the accepted motion.